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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,624	02/05/2002	Ben A. Lear	PA1687US	8735

22830 7590 12/12/2007
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EXAMINER	
MAIS, MARK A	

ART UNIT	PAPER NUMBER
2619	

MAIL DATE	DELIVERY MODE
12/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/936,624	LEAR ET AL.	
	Examiner	Art Unit	
	Mark A. Mais	2619	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 September 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-39,46 and 47* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-39,46 and 47* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-39, 46, and 47 are rejected under 35 U.S.C. 102(e) as being anticipated by Roach et al. (USP 7,124,195).

3. With regard to claim 1, Roach et al. discloses a system for efficient distribution of data to a client through a distributed computer network **[data distribution centers control and monitor the transmission of audio and video, col. 1, lines 54-57]**, comprising:

a management center **[Fig. 1, data distribution center 104]** connected to the network **[Fig. 1, core network 106 and access network 104]** for determining an optimal delivery route **[e.g., OSPF, col. 22, lines 29-33]** to the client **[Fig. 1, end user connected to broadband interface unit transceiver 110; end users, col. 7, lines 21-25]** and directing the data along the

optimal delivery route **[partnership of routing tables identifies the shortest route to the end user, col. 23, lines 18-22]**; and

at least one node connected to the network for relaying the data for delivery to the client **[a router wherein a router routes data between data distribution center and the end user(s), col. 7, line 67 to col. 8, line 4; the router is located within the core network (connected directly to the data distribution center), see Fig. 2B]**.;

wherein the management center comprises a mapping engine for mapping trace routes between the management center and the at least one node between the management center and the client in order to determine the optimal delivery route, the at least one node and the client in order to determine the optimal delivery route. **[it is inherent that the management center (data distribution center 104) maps the "optimal" delivery routes to and from the clients (end users); "optimal" routing encompasses both (1) the only route that works; and (2) the shortest route to the end users]**

4. With regard to claim 2, Roach et al. discloses that at least one node buffers the data before replicating a plurality of the data for delivery to multiple clients **[this is inherent to router multicasting—the data must be saved first, then copied, and then forwarded]**.

5. With regard to claim 3, Roach et al. discloses that at least one node buffers the data before replication **[this is inherent to router multicasting—the data must be saved first, then copied, and then forwarded]**.

6. With regard to claim 4, Roach et al. discloses at least one content provider, the content provider providing at least one stream of data to the network **[the databases (interpreted as the content provider) provide access to, distribute, and store the audio/video data; the databases are located within the data distribution center, col. 8, lines 5-10]**.

7. With regard to claim 5, Roach et al. discloses at least one zone master for assisting the management center with managing downstream nodes **[the access networks (interpreted as zone master) utilize routers and switches to route audio/video data between the data distribution center (through the core network) and the end user, col. 8, lines 45-60]**.

8. With regard to claim 6, Roach et al. discloses that the management center further comprises a mapping engine for mapping trace routes between the management center, at least one node and the client in order to determining the optimal delivery route **[OSPF is a link state protocol which establishes the links between endpoints, col. 22, lines 41-45; the partnership of routing tables (interpreted as the mapped trace routes) identifies the shortest route (interpreted as optimal route) to the end user, col. 23, lines 18-22]**.

9. With regard to claim 7, Roach et al. discloses that the management center further comprises a content manager **[Figs. 1, 2A, and 2B; the data distribution center controls the content (audio/video) stored within the databases, col. 6, lines 52-55 (i.e., controls access and distribution, col. 8, lines 7-9)]** for managing registration of content provider details **[the end**

user accesses the database through a remote server located within the data distribution center, col. 6, lines 56-60 (and the data distribution center controls access and distribution of the audio/video data, col. 8, lines 7-9)].

10. With regard to claim 8, Roach et al. discloses that the management center further comprises a node controller for monitoring and informing the at least one node **[since the data distribution center sets up the connection with the end user (col. 6, line 65 to col. 7, line 6), this is interpreted as informing the router of the connection].**

11. With regard to claim 9, Roach et al. that the management center further comprises a log management controller for compiling and processing log statistics received from the at least one node **[statistics such as received/returned packets (col. 25, lines 25, lines 17-21), lost packets (col. 25, lines 23-36), and lost frames (col. 25, lines 40-49), must necessarily be recorded in order for a network management tool, for example, to correct the faulty transmission/reception of data, col. 26, lines 1-20].**

12. With regard to claim 10, Roach et al. that the management center further comprises an interface engine for allowing access to management center databases **[the databases provide access to, distribute, and store the audio/video data; the databases are located within the data distribution center, col. 8, lines 5-10; there is inherently an interface between the data distribution center and the databases].**

13. With regard to claim 11, Roach et al. discloses that the data is distributed via channels **[users request a channel hosted by the data distribution center, col. 6, lines 61-65]**.

14. With regard to claim 12, Roach et al. discloses that the data is time-staggered versions of identical content to achieve virtual fast-forward and rewind **[interpreted as the content displayed by API-driven states such as fast forward, col. 20, lines 4-6]**.

15. With regard to claim 13, Roach et al. discloses that clients are delivered local content at predetermined or incident-invoked times for a predetermined duration **[interpreted as watching local television, col. 6, line 20]**.

16. With regard to claim 14, Roach et al. discloses that the data is packet switched telephony data **[voice communications, col. 6, line 10]**.

17. With regard to claim 15, Roach et al. discloses that the data is video conferencing data **[visual communications, col. 6, line 9]**.

18. With regard to claim 16, Roach et al. discloses that the data is live media content **[live event broadcasts, col. 6,line 21]**.

19. With regard to claim 17, Roach et al. discloses that the data is general Internet data **[education applications, col. 6, lines 6-7]**.

20. With regard to claim 18, Roach et al. discloses that the data is on-demand content **[on demand video and movies, col. 6, lines 19-20]**.

21. With regard to claim 19, Roach et al. discloses a system for distributing a single stream of data from a content provider through a distributed computer network to a plurality of clients **[data distribution centers control and monitor the transmission of audio and video, col. 1, lines 54-57]** within a class IP address range **[uses the TCP/IP address stack, col. 10, line 50 to col. 11, line 15]**, comprising:

a management center **[Fig. 1, data distribution center 104]** connected to the network **[Fig. 1, core network 106 and access network 104]** for determining optimal delivery *route*s **[e.g., OSPF, col. 22, lines 29-33]** to the plurality of clients **[Fig. 1, end user connected to broadband interface unit transceiver 110; end users, col. 7, lines 21-25]** and directing the stream of data along the optimal delivery *route*s **[partnership of routing tables identifies the shortest route to the end user, col. 23, lines 18-22]**;

wherein the management center comprises a mapping engine for mapping trace routes between the management center and a plurality of nodes and for mapping trace routes between the management center and each of the plurality of clients in order to determine a first optimal node in the first optimal delivery route to a first client and to determine a second optimal delivery route to a second client **[it is inherent that the management center (data distribution center 104) maps the "optimal" delivery routes to and from the clients (end users);**

"optimal" routing encompasses both (1) the only route that works; and (2) the shortest route to the end users]

the first optimal node *being* connected to the network for replication **[this is inherent to router multicasting—the data must be saved first, then copied, and then forwarded]** of the stream of data for delivery to the first client **[a router wherein a router routes data between data distribution center and the end user(s), col. 7, line 67 to col. 8, line 4; the router is located within the core network (connected directly to the data distribution center), see Fig. 2B; there are several routers within system 100 that operate together, col. 23, lines 18-20]**; and

the second optimal node *being* connected to the network for replication **[this is inherent to router multicasting—the data must be saved first, then copied, and then forwarded]** of the stream of data for delivery to *the* second client **[a router wherein a router routes data between data distribution center and the end user(s), col. 7, line 67 to col. 8, line 4; the router is located within the core network (connected directly to the data distribution center), see Fig. 2B; there are several routers within system 100 that operate together, col. 23, lines 18-20]**.

22. With regard to claim 20, Roach et al. discloses that the first and second optimal nodes are the same **["same" interpreted as they are both routers]**.

23. With regard to claim 21, Roach et al. discloses that the first and second optimal nodes replicate a plurality of the stream of data for delivery to the plurality of clients **[e.g., interpreted as watching local television, col. 6, line 20]**

24. With regard to claim 22, Roach et al. discloses a method for distribution of data to a client **[data distribution centers control and monitor the transmission of audio and video, col. 1, lines 54-57]** through a computer network **[Fig. 1, core network 106 and access network 104]**, comprising the steps of:

determining an optimal delivery route **[e.g., OSPF, col. 22, lines 29-33]** from a content provider **[Fig. 1, data distribution center 104]** to a client **[Fig. 1, end user connected to broadband interface unit transceiver 110; end users, col. 7, lines 21-25]**;

wherein determining the optimal delivery route comprises mapping trace routes between a management center and a plurality of nodes and between the management center and the client to determine an optimal node; **[it is inherent that the management center (data distribution center 104) maps the "optimal" delivery routes to and from the clients (end users); "optimal" routing encompasses both (1) the only route that works; and (2) the shortest route to the end users]**

transmitting a data stream from the content provider **[data distribution centers control and monitor the transmission of audio and video, col. 1, lines 54-57]** through the network **[Fig. 1, core network 106 and access network 104]**;

receiving the data at *the* optimal node to the client; and relaying the data for delivery to the client **[a router wherein a router routes data between data distribution center and the**

end user(s), col. 7, line 67 to col. 8, line 4; the router is located within the core network (connected directly to the data distribution center), see Fig. 2B; there are several routers within system 100 that operate together, col. 23, lines 18-20].

25. With regard to claim 23, Roach et al. discloses the step of transmitting the data through a path of a plurality of nodes before reaching the optimal node **[a router wherein a router routes data between data distribution center and the end user(s), col. 7, line 67 to col. 8, line 4; the router is located within the core network (connected directly to the data distribution center), see Fig. 2B; there are several routers within system 100 that operate together, col. 23, lines 18-20]**.

26. With regard to claim 24, Roach et al. discloses a management center determines the path **[since the data distribution center sets up the connection with the end user (col. 6, line 65 to col. 7, line 6), this is interpreted as determining path/connection between the data distribution center and the end user]**.

27. With regard to claim 25, Roach et al. discloses the step of substituting content local to the optimal node into the data stream **[interpreted as watching local television, col. 6, line 20]**.

28. With regard to claim 26, Roach et al. discloses a method for distribution of a single stream of data to a plurality of clients **[data distribution centers control and monitor the**

transmission of audio and video, col. 1, lines 54-57] within a class IP address range **[uses the TCP/IP address stack, col. 10, line 50 to col. 11, line 15]**, comprising the steps of:

determining an optimal delivery route **[e.g., OSPF, col. 22, lines 29-33]** from a content provider **[Fig. 1, data distribution center 104]** to a first client within the plurality of clients **[Fig. 1, end user connected to broadband interface unit transceiver 110; end users, col. 7, lines 21-25]**;

wherein determining the first optimal delivery route comprises mapping trace routes between a management center and a plurality of nodes and between the management center and the first client to determine a first optimal node; **[it is inherent that the management center (data distribution center 104) maps the "optimal" delivery routes to and from the clients (end users); "optimal" routing encompasses both (1) the only route that works; and (2) the shortest route to the end users]**

receiving the stream of data **[data distribution centers control and monitor the transmission of audio and video, col. 1, lines 54-57]** at a first optimal node **[a router wherein a router routes data between data distribution center and the end user(s), col. 7, line 67 to col. 8, line 4; the router is located within the core network (connected directly to the data distribution center), see Fig. 2B; there are several routers within system 100 that operate together, col. 23, lines 18-20]**. to the first client and duplicating the stream of data for delivery to the first client **[this is inherent to router multicasting—the data must be saved first, then copied, and then forwarded]**;

determining an optimal delivery route **[e.g., OSPF, col. 22, lines 29-33]** to a second client within the plurality of clients **[Fig. 1, end user connected to broadband interface unit transceiver 110; end users, col. 7, lines 21-25]**; and

receiving the stream of data **[data distribution centers control and monitor the transmission of audio and video, col. 1, lines 54-57]** at a second optimal node **[a router wherein a router routes data between data distribution center and the end user(s), col. 7, line 67 to col. 8, line 4; the router is located within the core network (connected directly to the data distribution center), see Fig. 2B; there are several routers within system 100 that operate together, col. 23, lines 18-20]** to the second client and duplicating the stream data for delivery to the second client **[this is inherent to router multicasting—the data must be saved first, then copied, and then forwarded]**.

29. With regard to claim 27, Roach et al. discloses that the first and second optimal nodes are the same **["same" interpreted as they are both routers]**.

30. With regard to claim 28, Roach et al. discloses a method for determining an optimal delivery route **[e.g., OSPF, col. 22, lines 29-33]** from a content provider **[Fig. 1, data distribution center 104]** to a client **[Fig. 1, end user connected to broadband interface unit transceiver 110; end users, col. 7, lines 21-25]** within a network **[Fig. 1, core network 106 and access network 104]**, comprising the steps of:

obtaining a trace route from a management center to the client; *comparing results of the trace route from the management center to the client to results of a plurality of trace routes from*

the management center to a plurality of nodes within the network to provide a hierarchical estimate of a plurality of more efficient network links from nodes within the network to the client; and selecting the most efficient network link as the optimal delivery route **[OSPF is a link state protocol which establishes the links between endpoints, col. 22, lines 41-45; the partnership of routing tables identifies the shortest route (interpreted as the most efficient route) to the end user, col. 23, lines 18-22] [it is inherent that the management center (data distribution center 104) maps the "optimal" delivery routes to and from the clients (end users); "optimal" routing encompasses both (1) the only route that works; and (2) the shortest route to the end users]**.

31. With regard to claim 29, Roach et al. discloses that the step of selecting further comprises performing trace route mappings between the node of the most efficient network link and the client to determine the optimal delivery route **[OSPF is a link state protocol which establishes the links between endpoints, col. 22, lines 41-45; the partnership of routing tables identifies the shortest route (interpreted as the most efficient route) to the end user, col. 23, lines 18-22]**.

32. With regard to claim 30, Roach et al. discloses that the step of determining further comprises performing trace route mappings between the management center and the nodes **[OSPF is a link state protocol which establishes the links between endpoints, col. 22, lines 41-45; the partnership of routing tables identifies the shortest route (interpreted as the most efficient route) to the end user, col. 23, lines 18-22]**.

33. With regard to claim 31, Roach et al. discloses that the step of determining further comprises accessing a database in the management center containing trace route data for the nodes **[interpreted as using a table (i.e., multimedia access table, access table, or routing table) for determining the shortest route (interpreted as the most efficient route), col. 23, lines 14-26]**.

34. With regard to claim 32, Roach et al. discloses that the step of determining further comprises accessing a location compiled table for node location data within a zone **[interpreted as using a table (i.e., multimedia access table, access table, or routing table) for determining the shortest route (interpreted as the most efficient route), col. 23, lines 14-26; the access networks (interpreted as zone master) utilize routers and switches to route audio/video data between the data distribution center (through the core network) and the end user, col. 8, lines 45-60]**.

35. With regard to claim 33, Roach et al. discloses that the step of determining further comprises accessing a best performing node index unique router address table **[interpreted as using a table (i.e., multimedia access table, access table, or routing table) for determining the shortest route (interpreted as the best performing node/route), col. 23, lines 14-26]**.

36. With regard to claim 34, Roach et al. discloses a system for distributing a single stream of data from a content provider to a plurality of clients through a distributed computer network

[data distribution centers control and monitor the transmission of audio and video, col. 1, lines 54-57], comprising:

means for determining an optimal delivery route **[OSPF is a link state protocol which establishes the links between endpoints, col. 22, lines 41-45; the partnership of routing tables identifies the shortest route (interpreted as the optimal route) to the end user, col. 23, lines 18-22]** from the content provider **[Fig. 1, data distribution center 104]** to a first client within the plurality of clients **[Fig. 1, end user connected to broadband interface unit transceiver 110; end users, col. 7, lines 21-25]**;

wherein determining an optimal delivery route comprises mapping trace routes between the management center and the first client and mapping trace routes between the management center and a plurality of nodes; **[it is inherent that the management center (data distribution center 104) maps the "optimal" delivery routes to and from the clients (end users); "optimal" routing encompasses both (1) the only route that works; and (2) the shortest route to the end users]**

means for receiving the stream of data at a first optimal node **[a router wherein a router routes data between data distribution center and the end user(s), col. 7, line 67 to col. 8, line 4; the router is located within the core network (connected directly to the data distribution center), see Fig. 2B]** to the first client **[Fig. 1, end user connected to broadband interface unit transceiver 110; end users, col. 7, lines 21-25]** and duplicating the stream of data for delivery to the first client **[this is inherent to router multicasting—the data must be saved first, then copied, and then forwarded]**;

means for determining an optimal delivery route **[OSPF is a link state protocol which establishes the links between endpoints, col. 22, lines 41-45; the partnership of routing tables identifies the shortest route (interpreted as the optimal route) to the end user, col. 23, lines 18-22]** to a second client **[Fig. 1, end user connected to broadband interface unit transceiver 110; end users, col. 7, lines 21-25]**; and

means for receiving the stream of data at a second optimal node **[a router wherein a router routes data between data distribution center and the end user(s), col. 7, line 67 to col. 8, line 4; the router is located within the core network (connected directly to the data distribution center), see Fig. 2B]** to the second client and duplicating the stream of data for delivery to the second client **[this is inherent to router multicasting—the data must be saved first, then copied, and then forwarded]**.

37. With regard to claim 35, Roach et al. discloses that the first and second optimal nodes are the same **["same" interpreted as they are both routers]**.

38. With regard to claim 36, Roach et al. discloses a computer readable medium having embodied thereon a program **[inherent]**, the program being executable by a machine to perform the method step for determining an optimal delivery route **[e.g., OSPF, col. 22, lines 29-33]** from a content provider **[Fig. 1, data distribution center 104]** to a client **[Fig. 1, end user connected to broadband interface unit transceiver 110; end users, col. 7, lines 21-25]** within a network **[Fig. 1, core network 106 and access network 104]**, the method steps comprising:

obtaining a trace route from a management center to the client; determining most efficient network links from the nodes within the network to the client;

comparing the results of the race route from the management center to the client to results of a plurality of trace routes from the management center to a plurality of nodes within the network to provide hierarchical estimate of a plurality of more efficient network link as the optimal delivery route **[OSPF is a link state protocol which establishes the links between endpoints, col. 22, lines 41-45; the partnership of routing tables identifies the shortest route (interpreted as the most efficient route) to the end user, col. 23, lines 18-22] [it is inherent that the management center (data distribution center 104) maps the "optimal" delivery routes to and from the clients (end users); "optimal" routing encompasses both (1) the only route that works; and (2) the shortest route to the end users].**

39. With regard to claim 37, Roach et al. discloses that the step of selecting further comprises performing trace route mappings between the nodes of the most efficient network links and the client to determine the optimal delivery route **[OSPF is a link state protocol which establishes the links between endpoints, col. 22, lines 41-45; the partnership of routing tables identifies the shortest route (interpreted as the most efficient route) to the end user, col. 23, lines 18-22].**

40. With regard to claim 38, Roach et al. discloses a method for determining an optimal delivery route from a first computing device **[Fig. 1, data distribution center 104]** to a second computing device **[Fig. 1, end user connected to broadband interface unit transceiver 110;**

end users, col. 7, lines 21-25] within a network **[Fig. 1, core network 106 and access network 104]**, comprising the steps of:

obtaining a trace route from management center to the first and second computing devices; determining most efficient network links from nodes within the network to the first and second computing devices; and performing trace route mappings between nodes of the most efficient network links and the first and second computing devices **[OSPF is a link state protocol which establishes the links between endpoints, col. 22, lines 41-45; the partnership of routing tables identifies the shortest route (interpreted as the most efficient route) to the end user, col. 23, lines 18-22]**.

41. With regard to claim 39, Roach et al. discloses a system for efficient distribution of data **[e.g., OSPF, col. 22, lines 29-33]** to a client **[Fig. 1, end user connected to broadband interface unit transceiver 110; end users, col. 7, lines 21-25]** through a distributed computer network **[data distribution centers control and monitor the transmission of audio and video, col. 1, lines 54-57; Fig. 1, core network 106 and access network 104]**, comprising:

a management center **[Fig. 1, data distribution center 104]** connected to the network **[Fig. 1, core network 106 and access network 104]** for determining an optimal delivery route **[e.g., OSPF, col. 22, lines 29-33]** to the client and directing the data along the optimal delivery route **[partnership of routing tables identifies the shortest route to the end user, col. 23, lines 18-22]**; and

at least one router device connected to the network for replication of the data for delivery to the client, wherein the optimal delivery route is determined by performing mappings to and

from the at least one router device and the management center **[a router wherein a router routes data between data distribution center and the end user(s), col. 7, line 67 to col. 8, line 4; the router is located within the core network (connected directly to the data distribution center), see Fig. 2B; OSPF is a link state protocol which establishes the links between endpoints, col. 22, lines 41-45; the partnership of routing tables identifies the shortest route (interpreted as the most efficient route) to the end user, col. 23, lines 18-22]**.

42. With regard to claim 46, Roach et al. discloses that the management center downgrades lower priority clients from a higher quality of service network link to a less optimal network link when a higher priority client requests use of the higher quality of service network link **[it is inherent that networks overprovision (overbook) their guaranteed QOS portions of their aggregate (total) bandwidth. Thus, higher priority clients necessarily downgrade lower priority clients to less than optimal links when competing for the same bandwidth]**.

43. With regard to claim 47, Roach et al. discloses that the at least one node is used to buffer and resynchronize multiple streams of content **[this is inherent to router multicasting—the data must be saved first, then copied, and then forwarded (synch'd up)]**.

Response to Arguments

44. Applicants' arguments filed have been fully considered but they are not persuasive.

45. With respect to claims 1, 19, 22, 26, 28, 34, 36, 38, and 39, Applicants state, apparently, that the data distribution center 104 in Roach et al. fails to disclose mapping the an optimal delivery route between it and the end users **[Applicants' Amendment dated September 14, 2007, page 14, paragraph 4 to page 22, paragraph 2]**. The examiner respectfully disagrees.

46. As stated in the rejection of claims 1, 19, 22, 26, 28, 34, 36, 38, and 39 above, it is inherent that the management center (data distribution center 104) maps the "optimal" delivery routes to and from the clients (end users). Here, "optimal" routing encompasses both (1) the only route that works; and (2) the shortest route to the end users. It is noted that the examiner has made the broadest reasonable interpretation in light of Applicants' specification.

Conclusion

47. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

48. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the

THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

49. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark A. Mais whose telephone number is 572-272-3138. The examiner can normally be reached on M-Th 5am-4pm.

50. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wing F. Chan can be reached on 571-272-7493. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

51. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MAM
November 30, 2007

12/10/07
WING CHAN
SUPERVISORY PATENT EXAMINER